CIVIL TECH LABS

Accredited by **NABL** as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Kodigenahalli Sub Division,
BBMP.

13th June 2015

Dear Sir,

Sub: Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Testing of cubes – Reg.

AE-8

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Reports of the above.

Thanking you,

For Civil Tech Labs,

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of Agency	Sri. K. V. Subbareddy
Grade of Concrete	M-15
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm²
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	CC-Work (Coping)	12/05/2015	09/06/2015	28	8.18	348	**15.47**	**15.35**
2					8.17	342	**15.20**	
3					8.19	346	**15.38**	

A2-8

Note:

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4. The results are based on the test conducted on samples supplied by the customer.

Verified

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of Agency	Sri. K. V. Subbareddy
Grade of Concrete	M-20
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm²
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	CC-Work (Drain)	16/05/2015	13/06/2015	28	8.20	495	**22.00**	**21.78**
2					8.18	485	**21.56**	
3					8.19	490	**21.78**	

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Lab Incharge
Civil Tech Labs

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T-2654

To,

Assistant Executive Engineer
Kodigenahalli Sub Division,
BBMP.

04th May 2015

Dear Sir,

Sub: Testing of Materials.

As requested, the required tests were carried out for the materials the samples supplied by you, for the work of **'Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division'.**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

Khushboo

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS

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Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of the Agency	Sri. K. V. Subbareddy
Date of Testing	04/05/2015

Tests	**Test Method As Per IS & Apparatus**		**Results**		**Requirements As Per IS 8112:1989**	**Remarks**
	IS Code	**Method**	**Value**	**Unit**		
Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	48	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	489	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	3	mm	Not More Than 10 mm	Satisfies Requirement

AR-8

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Lab Incharge
Civil Tech Labs

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TEST REPORT

TEST ON FINE AGGREGATES Ref:IS:383/2386

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of the Agency	Sri. K. V. Subbareddy
Date of Testing	04/05/2015
Specific Gravity	**2.56**

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970				Grading Zone
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV	
River Sand	10	**100**	100	100	100	100	II
	4.75	**98.8**	90-100	90-100	90-100	95-100	
	2.36	**84.3**	60-95	75-100	85-100	95-100	
	1.18	**72.4**	30-70	55-90	75-100	90-100	
	0.6	**46.4**	15-34	35-59	60-79	80-100	
	0.3	**23.5**	5-20	8-30	12-40	15-50	
	0.15	**8.8**	0-10	0-10	0-10	0-15	

Note:

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Lab Incharge
Civil Tech labs

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TEST REPORT

TEST ON COARSE AGGREGATES 40mm ↓ Graded Ref:IS:383/2386

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of the Agency	Sri. K. V. Subbareddy
Date of Testing	04/05/2015
Specific Gravity	**2.68**
Water Absorption in %	**0.28**

IS Sieve Designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)	Remarks
80	**100**	100	**Satisfies the requirement**
40	**98.1**	95-100	
20	**53.4**	30-70	
10	**24.9**	10-35	
4.75	**3.8**	0-5	

AE-B

Note:

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Verified

Lab Incharge
Civil Tech Labs

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TEST REPORT

TESTS ON REINFORCEMENT STEEL BAR 12 mm

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of the Agency	Sri. K. V. Subbareddy
Date of Testing	04/05/2015

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	12	12	Satisfactory
2	Wt/m Length (Kg/m)	0.889	0.888	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	15.2	14.5	Satisfactory
5	Yield Stress(N/Sq.mm)	424	415	Satisfactory
6	U T S (N/Sq.mm)	530	485	Satisfactory

AE-B

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Lab Incharge
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Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Kodigenahalli Sub Division,
BBMP.

08th June 2015

Dear Sir,

Sub: Testing of Bituminous Concrete.

As requested, the required tests were carried out for the Bituminous Concrete the samples supplied by you, for the work of **'Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.'.**

AE-6

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

GRADATION TEST ON BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of Agency	Sri. K. V. Subbareddy
Date of Testing	08/06/2015
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011)

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-18 for BC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
19	100	**100**	**Satisfies the requirements**
13.2	79-100	**98.3**	
9.5	70-88	**85.4**	
4.75	53-71	**64.7**	
2.36	42-58	**47.9**	
1.18	34-48	**37.6**	
0.6	26-38	**32.4**	
0.3	18-28	**22.9**	
0.15	12-20	**16.9**	
0.075	4-10	**7.6**	

AL-B

Note:

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Verified

Lab Incharge
Civil Tech Labs

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TEST REPORT

GRADATION TEST ON BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of Agency	Sri. K. V. Subbareddy
Date of Testing	08/06/2015
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011)

	Sample-2		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-18 for BC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
19	100	**100**	**Satisfies the requirements**
13.2	79-100	**99.1**	
9.5	70-88	**86.2**	
4.75	53-71	**65.3**	
2.36	42-58	**48.4**	
1.18	34-48	**38.8**	
0.6	26-38	**31.6**	
0.3	18-28	**23.5**	
0.15	12-20	**17.2**	
0.075	4-10	**8.1**	

AE-3

Note:

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Verified

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

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TEST REPORT

TEST ON DETERMINATION OF BITUMEN CONTENT ON BITUMINOUS CONCRETE MIX-GRADE 2

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of Agency	Sri. K. V. Subbareddy
Date of Testing	08/06/2015

A)

Sl. No.	Test	Test Method	Technical Reference
1	Extraction of mineral aggregate	**Test Method A (Centrifuge Method)**	**ASTM: D2172/ D2172M-11**
2	Determination of amount of mineral matter/fines in the extract	**Ashing Method**	

B)

Specification: As Per MORTH (4th Revision) Table 500-18, Bitumen Content for BC Grade-2 is 5% to 7%

Sl. No.	Description	Values
1	Weight of bituminous mixture before extraction test, W_1 g	**2000.00**
2	Weight of mineral aggregate obtained from centrifuge extractor, W_2 g	**1874.30**
3	Weight of mineral matter in the total volume of extract (by ashing), W_3 g	**13.42**
4	Total weight of aggregate in the bituminous mixture, W_4 g = (W_2 +W_3) g	**1887.72**
5	Total weight of Bitumen extracted from the mixture, W_5 g = (W_1-W_4) g	**112.28**
6	Bitumen content in %, (W_5/W_1) %	**5.61**

Remarks	**Satisfies the requirement.**

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T-2654

To,

Assistant Executive Engineer
Kodigenahalli Sub Division,
BBMP.

22nd May 2015

Dear Sir,

Sub: Testing of Wet Mix Macadam.

As requested, the required tests were carried out for the Wet Mix Macadam the samples supplied by you, for the work of **'Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division'.**

Please find the enclosed Test Reports of the above.

A2-6

Thanking You,
For Civil Tech Labs

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

GRADATION TEST ON WET MIX MACADAM

Name & Address of the Customer	AEE, Kodigenahalli Sub Division, BBMP
Name of Work	Improvements to roads and drains (Opp Muneshwara Temple and Nachikethana Provision Store) at Munneshwara Layout in Ward No. 08, Kodigenahalli Sub Division.
Name of the Agency	Sri. K. V. Subbareddy
Date of Testing	22/05/2015
Technical Reference	MORTH Table 400-11

IS Sieve Designation (mm)	% By Weight Passing IS Sieve	Actual % By Weight Passing IS Sieve	Remarks
53	100	**100**	**Satisfies Requirements**
45	95-100	**98.6**	
22.4	60-80	**75.3**	
11.2	40-60	**54.8**	
4.75	25-40	**33.7**	
2.36	15-30	**24.8**	
0.6	8-22	**18.9**	
0.075	0-8	**6.1**	

AE-8

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Verified

Lab Incharge
Civil Tech Labs

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